



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX LABORATORY
1337 S. 46TH STREET
BLDG. 201
RICHMOND, CA 94804-4698

SFUND RECORDS CTR
1110-00366

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JUN 28 1992

MEMORANDUM

SUBJECT: Case R02S46
Results for Perchlorate Analysis

FROM: *B. Beltencourt*
Brenda Beltencourt, Director
EPA Region 9 Laboratory (PMD-2)

TO: Nancy Riveland-Har, Environmental Protection Specialist
Sample Cleanup Section 4 (SFD-7-4)

Attached are the report narratives and results spreadsheets from analysis of samples from the Omega Chemical Superfund site. These data have been reviewed in accordance with EPA Region 9 Laboratory policy. Summary information for the data included in this report is as follows:

SITE/PROJECT: Omega Chemical
CASE: R02S46
LABORATORY: U. S. EPA Region 9 Laboratory
SAMPLE DELIVERY GROUP(S): 02142A, 02151A
ANALYSIS: Perchlorate (EPA method 314.0)

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Vance Fong at the Region 9 Quality Assurance Office.

If you have any questions please contact Rich Bauer at (510) 412-2312, or Ken Hendrix at (510) 412-2321.

ATTACHMENT: Analytical Report

USEPA REGION 9 LABORATORY
REPORT NARRATIVE

CASE NUMBER:	R02S46
SAMPLE DELIVERY GROUP:	02151A
PROGRAM:	SUPERFUND
DOCUMENT CONTROL #:	B0101095-1585
DATE:	06/18/02
ANALYSIS:	Perchlorate
SAMPLE NUMBERS:	

<u>SAMPLE ID</u>	<u>LABORATORY SAMPLE ID</u>
GW202-OW7-0081	AB35613
GW202-OW1B-0116	AB35614
GW202-OW1A-0080	AB35615
GW202-OW8-0075	AB35616
GW202-OW4A-0073	AB35617
GW202-OW4B-0125	AB35618
GW202-OW5-0048	AB35619
GW202-OW3-0080	AB35623
GW202-OW2-0078	AB35624
GW202-OW6-0048	AB35625
GW202-OW6-1048	AB35626

GENERAL COMMENTS

Eleven water samples were received from the Omega Chemical Superfund project on 05/31/02 and 06/01/02.

The requested analysis was perchlorate by Region 9 Laboratory SOP #531 (EPA Method 314.0). All perchlorate analyses were performed within the 28-day holding time.

SAMPLE RECEIPT AND PRESERVATION

No shipping or preservation issues were encountered.

QC COMMENTS

The following comment appears on the Summary of Analytical Results:

A. All detected results less than the quantitation limit (QL) are estimated (J).

No analyte was detected in the LRBs associated with this sample delivery group.

The LFM and LFM duplicate recoveries for perchlorate were within the 70-130% QC limits.

The relative percent differences (RPDs) between the LFM and LFM duplicate for perchlorate were less than or equal to the 20% QC limit.

The perchlorate LFB recovery was within the 90-110% QC limits.

Questions concerning the data can be answered by Osell Salvador at (510) 412-2358.

GLOSSARY

Laboratory Reagent Blanks (LRB)

A laboratory reagent blank is laboratory reagent water or baked sand with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. The laboratory reagent blank is used to determine the level of contamination introduced by the laboratory during analysis.

Laboratory Fortified Matrix (LFM), Laboratory Fortified Matrix Duplicate (LFMD) and Laboratory Duplicate (LD) Analysis

The laboratory fortified matrix spike sample and laboratory duplicate analyses provide information about the effect of the sample matrix on sample preparation and measurement. Poor percent recovery (%R) results and large relative percent difference (RPD) between duplicates may indicate inconsistent laboratory technique, sample nonhomogeneity in soils, or matrix effects which may interfere with analysis.

Laboratory Fortified Blank (LFB) Analysis

The laboratory fortified blank is laboratory reagent water or baked sand with a known concentration of the analytes of interest added by the laboratory with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. Poor percent recovery (%R) results may indicate inconsistent laboratory technique.

**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R02S46
SDG: 02151A
Date: 06/18/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW202-OW7-0081			GW202-OW1B-0116			GW202-OW1A-0080			GW202-OW8-0075		
Lab Sample I.D.			AB35613			AB35614			AB35615			AB35616		
Collection Date			05/29/02			05/29/02			05/29/02			05/30/02		
Units			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	3			2			3			3		

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - Parameter analyzed, but not detected; associated value is quantitation limit, adjusted for dilution.

J - The associated value is an estimated quantity.
The results are reported in ug/L.

**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R02S46
SDG: 02151A
Date: 06/18/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW202-OW4A-0073			GW202-OW4B-0125			GW202-OW5-0048			GW202-OW3-0080		
Lab Sample I.D.			AB35617			AB35618			AB35619			AB35623		
Collection Date			05/30/02			05/30/02			05/30/02			05/31/02		
Units			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	6			2			4			3		

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**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R02S46
SDG: 02151A
Date: 06/18/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW202-OW2-0078			GW202-OW6-0048			GW202-OW6-1048			Reagent		
Lab Sample I.D.			AB35624			AB35625			AB35626			Blank		
Collection Date			05/31/02			05/31/02			05/31/02			N/A		
Units			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	3			2	U		1	J	A	2	U	

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**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R02S46
SDG: 02151A
Date: 06/18/02
Analysis: Perchlorate
Matrix: Water

Sample No. Lab Sample I.D. Collection Date Units			Filtered Reagent Blank N/A ug/L			Method QL ug/L
Analyte	CAS #	EPA Method	Result	Q	Com	QL
Perchlorate		314.0	2	U		2

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USEPA REGION 9 LABORATORY
REPORT NARRATIVE

CASE NUMBER:	R02S46
SAMPLE DELIVERY GROUP:	02142A
PROGRAM:	SUPERFUND
DOCUMENT CONTROL #:	B0101095-1588
DATE:	06/17/02
ANALYSIS:	Perchlorate
SAMPLE NUMBERS:	

<u>SAMPLE ID</u>	<u>LABORATORY SAMPLE ID</u>
GW202-MW07A-0041	AB35432
GW202-MW03A-0042	AB35433
GW202-MW04A-0047	AB35434
GW202-MW04B-1075	AB35544
GW202-MW04B-0075	AB35545
GW202-MW04C-0094	AB35546
GW202-MW11A-0045	AB35547
GW202-MW08A-0040	AB35548
GW202-MW08B-0070	AB35549
GW202-MW08C-0087	AB35550
GW202-MW08D-0116	AB35551
GW202-MW09A-0032	AB35558
GW202-MW09B-0054	AB35559
GW202-MW06A-0042	AB35560
GW202-MW10A-0057	AB35561
GW202-MW01A-0055	AB35595
GW202-MW01B-0080	AB35596
GW202-MW01B-1080	AB35597
GW202-MW05A-0049	AB35598
GW202-MW02A-0055	AB35599

GENERAL COMMENTS

Twenty water samples were received from the Omega Chemical Quarterly Superfund project from 05/22/02 through 05/29/02.

The requested analysis was perchlorate by Region 9 Laboratory SOP #531 (EPA Method 314.0). All samples were analyzed within the 28-day holding time.

SAMPLE RECEIPT AND PRESERVATION

No shipping or preservation issues were encountered.

QC COMMENTS

The following comment appears on the summary of Analytical Results:

A. All detected results less than the quantitation limit (QL) are estimated (J).

No perchlorate was detected in the LRBs associated with this sample delivery group.

The LFM and LFM duplicate recoveries for perchlorate were within the 70-130% QC limits.

The relative percent differences (RPDs) between the LFM and LFM duplicate for perchlorate were less than the 20% QC limit.

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Laboratory Fortified Blank (LFB) Analysis

The laboratory fortified blank is laboratory reagent water or baked sand with a known concentration of the analytes of interest added by the laboratory with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. Poor percent recovery (%R) results may indicate inconsistent laboratory technique.

**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R02S46
SDG: 02142A
Date: 06/17/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW202-MW07A-0041			GW202-MW03A-0042			GW202-MW04A-0047			GW202-MW04B-1075			GW202-MW04B-0075		
Lab Sample I.D.			AB35432			AB35433			AB35434			AB35544			AB35545		
Collection Date			05/21/02			05/21/02			05/21/02			05/22/02			05/22/02		
Units			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	5			1	J	A	3			6			6		

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**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R02S46
SDG: 02142A
Date: 06/17/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW202-MW04C-0094			GW202-MW11A-0045			GW202-MW08A-0040			GW202-MW08B-0070			GW202-MW08C-0087		
Lab Sample I.D.			AB35546			AB35547			AB35548			AB35549			AB35550		
Collection Date			05/22/02			05/22/02			05/23/02			05/23/02			05/23/02		
Units			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	3			6			4			4			2		

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**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R02S46
SDG: 02142A
Date: 06/17/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW202-MW08D-0116			GW202-MW09A-0032			GW202-MW09B-0054			GW202-MW06A-0042			GW202-MW10A-0057		
Lab Sample I.D.			AB35551			AB35558			AB35559			AB35560			AB35561		
Collection Date			05/23/02			05/24/02			05/24/02			05/24/02			05/24/02		
Units			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	2	U		2	U		4			4			4		

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**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R02S46
SDG: 02142A
Date: 06/17/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW202-MW01A-0055			GW202-MW01B-0080			GW202-MW01B-1080			GW202-MW05A-0049			GW202-MW02A-0055		
Lab Sample I.D.			AB35595			AB35596			AB35597			AB35598			AB35599		
Collection Date			05/28/02			05/28/02			05/28/02			05/28/02			05/28/02		
Units			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	3			2			3			4			7		

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N/R - Not Required.

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U - Parameter analyzed, but not detected; associated value is quantitation limit, adjusted for dilution.

J - The associated value is an estimated quantity.

**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R02S46
SDG: 02142A
Date: 06/17/02
Analysis: Perchlorate
Matrix: Water

Sample No.			N/A			N/A			Method QL
Lab Sample I.D.			Reagent Blank			Reagent Blank			
Collection Date			N/A			06/03/02			
Units			ug/L			ug/L			ug/L
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	QL
Perchlorate		314.0	2 U			2 U			2

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N/A - Not Applicable.

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Q - Refer to data qualifiers.

U - Parameter analyzed, but not detected; associated value is quantitation limit, adjusted for dilution.

J - The associated value is an estimated quantity.